Seal Maker®
The system for flexible seal production

Material Data Sheet U500-R95

Polyurethane U500-R95 - red

General

U500-R95 is a hydrolysis–resistant (H-PU), casted Polyurethane, based on MDI, Polycarbonate Polyol and certain additives. Due to the excellent overall properties it is recommended as a standard sealing material for most of the hydraulic applications.

Physical properties

Density:	DIN 53479	g/cm³	1,16 ±0,03
Hardness at 23°C:	DIN 53505	Shore A	95 ±2
Hardness at +100°C:	DIN 53505	Shore A	93 ±2
100% Modulus:	DIN 53504	N/mm²	≥ 10
300% Modulus:	DIN 53504	N/mm²	≥ 30
Tensile strength:	DIN 53504	N/mm²	≥ 50
Elongation at break:	DIN 53504	%	≥ 350
Tear strength:	DIN 53515	kN/m	≥ 100
Compression set, 24h, 70°C, 25%:	DIN 53517	%	≤ 25
Compression set, 24h, 100°C, 25%:	DIN 53517	%	≤ 35

Temperature range: **-30°C to 125°C**

Chemical resistance

Resistant to:	Water up to 90°C, Sea Water, Mineral Oils, Vegetable Oils, Silicone Oils, Ozone, Oxygen (cold), HFA fluids, HFB fluids, diluted Acids and Lyes
Not Resistant to:	Steam, conc. Acids and Lyes, conc. Alcohols, Solvents, HFD fluids

Main application

Static and dynamic applications, mostly used for U-seals, wipers and packings up to 400 bar pressure in standard hydraulics. Due to its outstanding hydrolysis resistance it can be used in the most common hydraulic fluids, oil in water emulsions but also water power applications, applications in the mining industry and presses. U500-R95 can also be used in applications with contact to foodstuff.

Available certificates

- Conform to (EC) No 1935/2004 and (EC) No 10/2011
- Conform to positive list of FDA 21 CFR 177.1680

Analysis and Evaluation

Values mentioned above are based on several tests performed during development and production of the material. Tests have been performed on standard test pieces specified within the relevant standard within the laboratory. Tests performed on any other pieces which are not related to the corresponding standard or made out of any (semi)finished part or any other part deviating in production process, dimension or age of the material from above may result in different values. The data represent our present empirical values and do not disengage the processor or user from his obligation to examine the usage of the material for his specific application.

We reserve the right to update this data sheet from time to time if new empirical values are available. Errors and omissions excepted. V1.2

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